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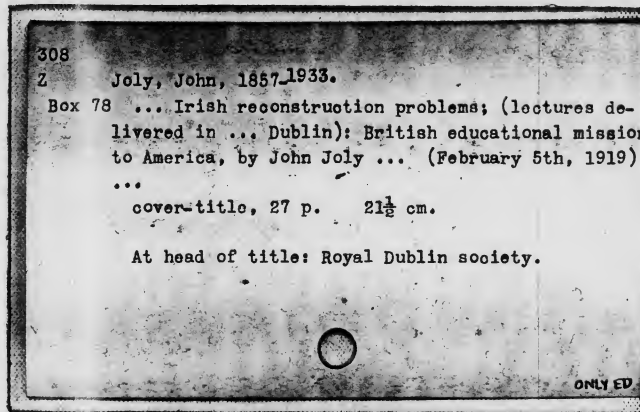
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## IRISH RECONSTRUCTION PROBLEMS

(Lectures delivered in Leinster House,  
Kildare Street, Dublin).

### BRITISH EDUCATIONAL MISSION TO AMERICA

BY

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## WITH THE BRITISH EDUCATIONAL MISSION IN AMERICA.

AN ESSAY DIRECTED TOWARDS IRISH  
RECONSTRUCTIONAL PROBLEMS.\*

By J. JOLY. Sc.D., F.R.S., F.T.C.D.

WITH the downfall of German influences on Anglo-Saxon higher education, and more especially the weakening of those influences on American university ideals, the need for more intimate mutual understanding between American and British universities, came into being. This was early recognised in America. And it was in response to the invitation of the American Council of National Defence that the Foreign Office recently sent representatives of the British universities to the States to visit the leading American universities and to discuss with American educational experts the steps proper to the development of a more intimate association of the academic life of both countries: the interchange of students and professors being more especially kept in view.

It is evident that the object is one of international importance; not only with respect to the advancement of learning and the benefit to research which must attend an intermingling of the university life of the two countries, but because an even more important result may confidently be expected to arise: the strengthening of the bonds binding together the two great branches of the Anglo-Saxon race.

It is certain that no League of Nations, no *entente*, can either equal in effectiveness or replace sympathetic mutual understanding and the possession of similar ideals. Alike in origin and language, with a great

\*Lecture delivered before the Royal Dublin Society, February 5th, 1919.

literature in common, with similar democratic aspirations, it only remains for the free intermingling of the British and American peoples to cement the whole into a great world influence on the side of truth, justice, and peace.

By the migration, more especially, of young university students is this supremely important result to be most certainly achieved. In his boyhood the man can effect this wonder. It is then he receives impressions most readily. It is then he makes his life-long friendships. And, given a sustained migration of university students in both directions, an ever-increasing sympathy between the peoples must arise. These influences permeate rapidly in democratic communities. Increased circulation in other ranks of society must follow. Mutual distrust, founded upon ignorance and want of sympathy, will disappear, and an overwhelming influence on the side of peace will ensue. The boy has won the world's salvation on the battlefield: it is for him now to win the world's peace on the playground. Such is the great ideal underlying the Balfour Mission, the reticence of official diction notwithstanding.

And our quest had also a curious archaic aspect which was many times vividly before me; more especially when our train was running hour after hour through the primeval forests and more remote regions of the American continent. Then, when twilight came on, the endless, receding panorama, as seen from our observation car, suggested some strange journey into the past. What were we out for? To put back the hands of the clock. In the Middle Ages the student travelled from one university to another. He traversed the long and adventurous roads separating the *studium generale* of his city from some similar place of learning elsewhere. The Angel of Peace was by his side and guided his footsteps. With the intensified religious rivalry attending the Reformation that beneficent custom ceased from Europe. The Angel veiled her face and withdrew to a better world. The wandering student disappeared, the long highways knew

him no more, and this sacred bond between the young of all civilised lands, instead of growing in strength, was destined to dissolve and disappear. Yes! the purpose of our mission is to put back the hands of the clock; to restore the old conditions, and to invoke once more—if it might be—that departed Angel to a world weary of war and longing for the blessings of enduring peace. So great an ideal might well transform the melancholy landscape with “the light that never was on sea or land.”

We left the Mersey on September the 28th. A large convoy of returning transports along with several destroyers accompanied us for a couple of hundred miles. We were thereafter alone on the ocean. We reached New York on October the 9th. There is not time in this lecture to tell of our wanderings. I must, however, bear testimony to the generous hospitality which was everywhere extended to us: to the perfect organisation which spared us all the trouble of travel, and provided us with a recognised educational expert as a travelling companion: to the honour which was accorded to us. We were received and most hospitably entertained by President Wilson at the White House—a building which—as the President reminded me, is architecturally similar to this Leinster House in which we are assembled. In Canada we were graciously received by His Excellency the Governor-General and Her Excellency the Duchess of Devonshire. I would much like to tell you of the kindly and high-minded men—Presidents, Deans, and Professors of the Great Universities—whom we met: men, very often, of world-wide reputation. But I must pass on, because not only must I keep before you the object of the mission as being bound up with the reconstruction of the world, but I must also dwell upon the subject of the educational reconstruction of Ireland.

I had been to the States rather more than twenty years ago. The changes in the great cities which had arisen in the interval between then and now were strikingly apparent. But I soon came to see that the changes were not confined to material development.

If I do not err, the people themselves have advanced towards a more idealistic civilisation and towards higher aspirations. And the idealism of modern America is largely directed to educational aims of the wisest and most far-reaching kind. This is the sanest outcome of a democratic civilisation. And the more thoughtful Americans clearly recognise that only in this direction is democracy assured of a great future. But I think a large number of Americans derive their zeal in the cause of education simply from the fact that they are child-lovers.

We had only been a couple of days in New York when we were taken to visit a privately-built and endowed elementary school some thirty miles up the Hudson. We ran out on motors through the autumn glories of scarlet, green and gold, past exquisite glimpses of the beautiful river and its lofty overhanging cliffs, till we reached Mr. Vanderlip's home. He, himself, took us over his school. It is perfect in every respect—within and without. Why had he built it, and why does he spend a fortune upon its excellent teaching staff? He wished the children, poor and rich, of his locality to have a really good school in which they might learn to become good men and women. His own little children attend it. There was no mistaking the sincere enthusiasm which governed his actions. I believe Mr. Vanderlip to be a type in modern America. We are not without such men here. Witness the beneficent play centre of St. Patrick's Park. Witness St. Stephen's Green, and much private effort over the country.

Lest you should think I am possessed with exaggerated ideas on the subject of American ideals of education, I shall quote here from a very staid report issued some years ago by the English Board of Education:—"The cause at which the Nation is at one from the Washington Senate to the slum settlement in New York or Chicago, is that of the education of the people. Public education is felt to be of the art of nation-building; it is for this that at the present moment the flag of the nation stands rather than for Imperialism or any other purely political development."

This was written eighteen years ago. It is even more true to-day.

The high value placed on education in America is shown in many ways. By the large sums spent by the several States on the State Universities and on the primary and secondary schools. By the completeness and elaborateness of all those institutions, and, above all, the generous multiplication of splendid schools everywhere—even in quite remote regions. Some States of but a couple of million inhabitants spend more money on their colleges and technical institutes than the entire income of all the universities and colleges of the United Kingdom. The enthusiasm for education is also shown in the great and increasing literature on the subject. The general interest in it is soon perceived by the visitor. Speak on the subject to the average frequenter of the city club—to your neighbour at dinner—or in the railway carriage—whether man or woman—interest is instantly awakened. You get new ideas and often details of information with which you were unacquainted. The vast number of educational experiments—it is an experimental science—is another witness of the trend of national thought. Finally you have the unanswerable evidence of the munificent donations given by private individuals—often anonymously or in memory of friends—to the schools and universities.

The American ideal of school and university education is one of democratic equality. There exist, indeed, class schools, and to some extent class universities, but these are privately endowed. Co-education is general in the public schools, and it exists in varying degrees in most of the universities. Another broad principle prevails in school and university education. No sectarian distinctions are permitted. In short the unifying principle is recognised as primary in the American scheme of education. The varying nationalities which flock to America can never develop into good citizens if either religious or political differences are allowed to prevail in school life. The child is taught self-abnegation and subordination to the interests of

the State. In other words, he is brought up to the highest ideal of citizenship. And the school is designed to be—in the words of a United States commissioner of education—"the symbol of an eternal unifying spirit."

But don't let it be thought that there is no religion in the land; that the Bible is not read; that the churches are empty. This would be an error. Those who desire evidence on this point should read the able *Report on Moral Education in American Schools* (from which I have already quoted) issued by the British Board of Education in 1902. My own experience is that religion—in the universities—is carried into everyday life in a manner uncommon in this country. We were received at Illinois with an allegorical representation of the friendship between Britannia, Illinois and Canada. It was made the occasion of an impressive religious ceremony—closing with prayer and the Benediction. A couple of thousand people, at least, took part. The churches attached to the universities or associated with the students are well filled on Sundays. The Y.M.C.A. is active everywhere, and all religious denominations are represented. Handbooks are issued, and handsome settlement houses are open to the students. I have here one of these handbooks. The preface is written by the president of the university.

The Bible is read in most of the public schools. Sometimes this is definitely enjoined by law of the State, as in the case of the City of New York—with its five million inhabitants—where the rule stands, "Sect. 134. All the schools of this City under the jurisdiction of the Board of Education shall be opened with reading a portion of the Holy Scripture without note or comment." The Lord's Prayer, too, is very often recited. But public money will be denied to any school which teaches the tenets of any particular religious sect.

There are many universities associated with special creeds, e.g., the fine Catholic University of America, at Washington; the Boston (Catholic) College, Chestnut Hill. Others are essentially Protestant, e.g., the Boston University. Such institutions are not supported by the State.

The American child is born into a world which in many social particulars differs from our own. He, as a social unit, claims equality with all his little fellow citizens. His eyes may first see light in a garret; the complaints of poverty may be the first sounds to reach his ears; but the moment he enters on his school life—perhaps at three and a-half years—when he is brought to the Kindergarten, or to the Montessori school, he is, in virtue of his sacred humanity, a being having claims upon the State equal to those of the child of the millionaire. At six he enters the elementary school. In these early years he is taught side by side with other little citizens of every grade of society.

I would like at this point to give you some idea of the spirit which underlies American and Canadian education. In addressing the Canadian teachers, the President of the Winnipeg Normal School makes this beautiful appeal:—

"Would you hear your country's call? I bring you here those who are my hope. I bring you the children of the wealthy and the children of the poor. I bring you those who differ in race, and in language, in custom and in tendencies—I bring you the physically strong and the physically weak; the mentally sound and those to whom nature has not given a full measure of strength. I bring you my boys and my girls who are to be the fathers and mothers in this great land. Will you accept them all? Out of this heterogeneous combination can you bring unity? Can you reconcile wealth and poverty so that the feeling of a common brotherhood will prevail? Can you teach British, French, Germans, Scandinavians, Icelanders, and Poles, that in this free land all are equally worthy if unreservedly they accept the honour and perform the duties of true citizenship? Can you rise above distinctions in creed so as to forget that we have Jew and Gentile, Catholic and Protestant? Can you in recognising to yourself distinctions of every kind, so order your work that these will not be a source of separation and contention but the very elements of

strength in a Nation in which the ideal of brotherhood prevails?"

In the Elementary School the boys and girls are taught together. They learn English, mathematics, nature studies, writing, physical culture, and singing, throughout the eight years. For lesser periods history and drawing are taught. During the last two years the boys learn carpentry, and the girls household arts. These are very popular subjects. Latin is optional. I cite the curriculum in the public elementary schools of Chicago.

When the child attains fourteen years the parent may terminate his school education—just as here in Ireland. This is admittedly a blot on State education in America; a blot which I was told would probably soon be removed. The Fisher Act has lately removed it from English school education.

If the boy's education is proceeded with after his time in the Elementary School is accomplished, he passes into the Secondary or High School, and spends four years there.

In the High School English and Latin are taught for the whole four years; but a modern language may be substituted for Latin. Physical culture, music and drawing also run for the four years. Algebra and geometry and other sciences are taught for lesser periods. There are many optional subjects. And very often the career in the High School is replaced by one in a School of Commerce or some other vocational institution which combines general education with some bread-winning subject of instruction. I believe I am correct in adding that courses in civics or "citizenship" are now included in all, or nearly all, American public school curricula. To teach the relation of the individual to the State and the supreme importance of the interests of the latter, are the objects in view.

The High Schools of America are wonderful. Wonderful in accommodation, in equipment, and in the spirit which appears to prevail between teacher and pupil. The relations of pupil and teacher are—

according to our ideas—peculiar. The teacher is on a footing of equality with the pupil to an extent which we would deem injurious. Some claim for this the advantage that the pupil in consequence reveals his defects more readily. It need hardly be said that more than this is aimed at by the laxness of the American system. Pages might be, and have been, written about what is intended. Briefly, it is to treat the child as a reasonable being; to train him to self-control under the guiding influences of the teacher's personality and the public opinion of the class. In short, the aim is "character-building." The personality of the teacher is admittedly the most important factor, and this factor cannot have full play if there is a formal relationship between teacher and pupil. The want of ceremonial diffidence towards the school teacher, coupled with the mixing of all grades of society, would appear to impose a heavy burthen on the teacher. And so they do. It is said that European teachers almost invariably fail to handle an American school class. There is no corporal punishment—or at least it is very rare. An unruly child is sent home and his attendance suspended for a period. Whatever be the defects of the system, it certainly sends up to the colleges boys and girls equal to our best. And the events attending conscription in America seem to show that a great law-abiding and patriotic middle and labouring class exists in the United States.

I was anxious to obtain an insight into American methods of school teaching. At Houston, in Texas, I asked to be allowed to take lessons in the Junior High School. This was gladly granted. My first lesson was in Hygiene. The teacher was a lady. There were about twelve boys and as many girls—between, say, fourteen and sixteen years of age. The boys and girls sat on separate benches. The teacher sat at a table on which were bell glasses covering preparations of gelatine which bore evidence of bacterial infection. The children had, evidently, on a previous occasion, themselves made these cultures. The questions ran like this:—Q. What did you do to this plate? A. I



put my finger on it. Q. Why did you do that? A. To see if there were bacteria on my finger. Q. Are there other sources of bacteria? A. Oh, yes, lots. My saliva, the air, objects lying about. And so on; the boys doing most of the answering.

My next lesson was in Nature-study. The subject was common rocks—a subject I have myself, sometimes endeavoured to teach. The teacher was an elderly gentleman. He seemed pleased to have a contemporary pupil. I sat in the back row. A couple of dozen boys, or rather more, made up the class. The rock specimens came round and the boys said what they were and where they had come from. I gathered that the children had, themselves, collected the specimens. One came to me. A sweet little fellow on my right thought I was stuck. "Sandstone," he said in a whisper. And so it was. May the Good Angel, whose privilege it is to look after little children, protect and reward him! For the years of life, the long years, fell from me, and I had risen from the grave. My school friends in their angelic youth were by my side. The dream lasted but a moment. Then it was broken, it faded and was gone.

These children were probably derived of various nationalities. Some were Jewish in features. All were spotlessly clean and nicely dressed. Their faces were frank and open. The boys were manly little fellows. My presence seemed to make no difference; I was just greeted with friendly glances. To say the truth, I rather envied teachers who seemed in such perfect sympathy with their pupils.

The College or University receives the boy when he is about eighteen. Between a college and a university there is often but little distinction. Generally the university is associated with the graduate school of research leading to the higher degrees—i.e., to the M.A. and the Ph.D., and with the schools of the older professions, Divinity, Law, and Medicine. The college course is typically for four years, leading to a *baccalaureate* in Arts or Science; the B.A. and the B.S. A large number of the universities are State univer-

sities. These are supported by the several States, often by means of a land-grant made to the university. Such institutions generally possess a Faculty or School of Agriculture. The endowed universities—such as Harvard, Yale, Johns Hopkins, have nothing to do with Agriculture. Some of these are fabulously wealthy; and their graduate schools constitute the finest educational achievement of America.

In all the great universities there is a most lavish provision of equipment. Nothing is wanting either for study or research, so far as money can supply it. The health—physical and mental—of the students are conscientiously provided for. In some cases—e.g., Pennsylvania—the boy is under medical supervision the whole time, and the sports he takes part in depend on the restrictions imposed by the University Medical Staff. He must get credit for a couple of hours gymnastic training per week, and must learn to swim in his first year.

The teaching staff are more numerous than in our universities. There may be twenty or more teachers of English, for example, and the study of that subject may be sub-divided into ninety or more courses. And so for other subjects. It must be remembered that the numbers of students dealt with are very great, up to 8,000 in one university, or even more. A study of any one of the great universities, e.g., Yale, Harvard, Michigan, Pennsylvania, etc., is most impressive, not only on the score of accommodation and equipment and—very often—the high order of architectural beauty attained by the buildings—but because of the sterling qualities of the men who conduct these great institutions; and, indeed, of the students who attend them. The lads, so far as I met them, were just like the best of our own. If I had a boy to send, I would gladly give him—if only for his own sake—a session in one of these great universities. It would be an education in itself. It is no wonder that the *alumni* of these great institutions later in life, if fortune smile upon them, return to their parent and lavish their wealth upon her.

Such university benefactors have often been poor indeed in their student days. Here, in a book of *Student's Aids*, issued by Harvard—the most select of the universities—we have a list of the means by which a boy may supplement his income. He may be a janitor, a waiter, a professional shopper, etc., and even a “man to personate Santa Claus.” The latter was poorly paid, he earned but half a dollar. The family cows have been driven to the college campus and the milk sold to fellow students. Goldsmith and Linnæus had similar troubles in their day. In this land of right-thinking and divine charity such students are honoured because of their efforts.

Notwithstanding the great work which American education has accomplished and the excellent material it turns out, there are many American writers who criticise their system on two points; which it is profitable for us to consider. It is said that purely informational teaching in contradistinction with cultural teaching, prevails to too great an extent in the schools. It is an old belief of my own that one generation cannot educate the next. Hence, giving information to the boy is of less importance than training his intellect so that he may later in life take a clear and correct view of the environmental factors of his time. The second point is that too much is sacrificed to the democratic ideal. For on this, in America, is based the idea that segregation of the clever boys and girls is unfair to the less clever ones. Hence there are no honour courses in the universities and colleges. Now the evil here is that we fly in the face of that great law prevailing throughout Nature—the law of the survival of the fittest—Nature's seemingly most merciless, but really most beneficent law. We in Great Britain are unquestionably right in favouring the clever boy; he is of more value to the State than the stupid lad. And besides, it is very doubtful if we injure the latter by the segregation of intelligence.

We have not yet in Ireland risen to the idea of a university in really close touch with the life of the people. The State University of America seeks by

every means to get into touch with the life of the State. It most effectively does this by its educational functions. There is a strong and increasing influence of the University on the Schools. It aims at becoming the real head of the whole educational system. It trains a large part of the secondary school teachers. It co-operates with the public authorities in determining their standards. And it offers free education to students residing in the State. Let us consider the relation between State University and Public School in Illinois, for example.

By a law of the State of Illinois, passed in 1911, it is possible for the voters in the State to organise a High School in any compact and contiguous territory of over 1,000 inhabitants. In consequence of this the Township High Schools, 16 in number in 1900, rose to 263 in 1916. It is believed that there will be 1,000 of them before very long. The University of Illinois influences these schools through its inspections, matriculation examination, and bulletins. The moment a student enters the High School his acquaintance with the University begins. He finds the syllabus laid down to meet the University requirements; his teachers are in communication with the Educational Faculty of the University; and the School is periodically paraded before the University inspector. The University holds an annual conference which the teachers attend [Nevins', 'Illinois']. In all this there is much for us to ponder on, here in Ireland.

But there is another direction in which the American State University gets into touch with the wants of the people; by its agricultural teaching and research. We may, again, illustrate this by the case of the University of Illinois.

At Illinois the work done for the State by the College of Agriculture attached to the University falls under three general heads: activity in research; dissemination of advice and information by correspondence; teaching in the college and in other Institutes.

An extensive physical and chemical analysis of the soil of Illinois has been made by the university. It is

a general State soil-survey. A detailed one, even down to 5-acre lots, is being carried out. These investigations are a necessary basis for scientific methods of agriculture. Important results have already been arrived at. Experiments are being made on crop production, milk production, and meat production. The saving of millions of dollars is said to have been effected by these experiments.

In the Nutrition Laboratory of the University, experiments have been conducted on the influence of different kinds of feeding stuffs, on the growth, fattening and nutrition of beef, cattle, swine, and lambs; and these have established the best rations for such animals. These experiments were extended to human diet. Conclusions of the greatest importance were arrived at by these well-known investigations. It would be impossible here to go into the work on experimental entomology or on the very different subjects of fuels. Enough has been said to show the practical spirit which animates much of the work of the university.

That such undertakings would not be suited to our older universities in these countries will be held by many. Still I think we are steadily moving in that direction. The older universities of America were at first equally slow to embark on practical technology and such subjects as Commerce, Journalism, etc. Thus Columbia University, although supported and urged by influential business men, hesitated for a decade before she embarked on Commerce; fearing an injurious reaction on the older faculties. Yet to-day many universities give degrees in such subjects, and we have not thought it derogatory to the dignity of Trinity College to encourage the subject of Commerce. Nor have we stopped at Commerce. We have pursued the *descensus Averni* so far as Agriculture.

While, however, willing to follow in the steps of the young institutions of America so far, it is probable that so long as our educational system in Ireland from bottom upwards remains as it is, any further steps to follow American precedent in its completeness must be attended with difficulty. The educational hold

which the State University has on the community is largely due to the Secondary or High School system of the country. We have no such organised high schools here in Ireland. Of course our class distinctions and religious denominational distinctions would, in any case, render it impossible to establish any unifying university influence—at the present time. Still I think there is room for much valuable university influence on the Secondary Schools of this country. Not only private schools, but public schools. It constitutes an important branch of re-constructural work, needing much thought, knowledge, and experience to successfully develop. For I am convinced it is the sort of influence which should be invited and developed, not enforced or created. It would ultimately result in the several universities of this country getting into touch with such larger secondary schools as were in sympathy with the ideals of the University. The bond need not amount to affiliation, but might involve advice, inspection, and the training of teachers, and even in some cases the teaching of the more advanced pupils by university teachers, in scientific subjects more especially. Then, too, the university might conduct examinations and endorse leaving certificates. Such a friendly alliance would benefit all parties: the students, the schools, and the universities; and I think it would be welcomed by many masters of secondary and intermediate schools.

When we come to consider the agricultural functions of the State Universities of America with reference to our own country, we must refrain from suggestions or conclusions till we have studied a different type of institution which in the United States and in Canada has done splendid work for agriculture. I refer to the Agricultural College.

We may take as example the Iowa State College of Agriculture and the Mechanic Arts, the headquarters of which are at Ames. I have here a report specially prepared for the British Educational Mission by the Director. We shall confine our attention to the Division of Agriculture.

The work of the Agricultural Division includes three major lines of organisation. These are :

1. The College.
2. The Experiment Station.
3. The Extension Service.

We must again curtail our studies by confining our attention to the work of the Experiment Station.

The Iowa Agricultural Experiment Station has for its object to study the agricultural problems of the State. These it summarises thus :—

1. Improvement of crops and live stock by breeding.
2. Improved methods of growing and marketing farm crops.
3. Maintenance of the fertility of soils.
4. New and better methods of feeding and handling live stock.
5. Manufacture and marketing of dairy products.
6. Growing and marketing of fruit and truck crop.
7. Control of insect pests and plant diseases.
8. The housing of live stock and storing of crops.
9. Systems of farm management.
10. Social surveys of rural committees.

A large staff is employed. The projects of investigation at present under way number about one hundred. A project has to be considered and approved by the Director after being outlined by the members of the staff.

The report is deserving of being reprinted *in extenso*.

The creation of an experimental farming station of similar scope in this country would be the best of all reconstructive acts. There can be no doubt of its usefulness and of the need for it. For there is really nothing like this in Ireland. There is much good work of agricultural propaganda going on, but a properly organised and properly staffed experimental farming station does not exist here.

Many years ago this project was very carefully considered by the Council of the Royal Dublin Society. It was deemed to be, financially, within the ability of the Society to carry through. We got valuable encouragement from Sir Alfred D. Hall, then Director

of Rothamstead, who considered such a station, as apart from the work of Rothamstead, desirable, owing to the differences in agricultural and climatic conditions in Ireland and England. The matter fell through at the time. To-day we might perhaps hope for Government support. It is a scheme which must affect the wealth of the empire. I believe it is again under consideration. I think we ought to stop considering it, and get it done.

Much of the value of such an experimental Agricultural Station would be lost if it was not made available for agricultural instruction. It is in this connection it comes, properly speaking, within the scope of my remarks. The opportunities offered by it would be of inestimable service to all those institutions in Ireland which offer teaching in agriculture. All alike should be allowed, under certain conditions, to enter students for practical instruction.

There are two other branches of education in the States to which we here in Ireland should pay special attention :—Commercial and Technical.

The establishment of Commercial Schools—taking the place of the High School and receiving boys who have finished with the Elementary School—is a comparatively recent development. I inspected a beautiful institution of this kind at Boston. It held some thirteen hundred boys, all under 18 years of age. There is, of course, a general educational course as well as a business course. The boys are given opportunities in the great business houses of Boston to acquire a practical knowledge of their profession. They may even earn considerable sums of money in this way. The Director told me that last summer under the prevailing war conditions his boys earned a total of over 70,000 dollars. He had a table showing the earnings of the different grades. While such Commercial High Schools are comparatively recent, the commercial or business course in the High School is an older institution.

The first university of America to found a School or Faculty of Commerce was Pennsylvania. This was

in 1881, by a private endowment. University Schools and Colleges of Commerce are now everywhere, and enormous numbers of students attend them. Fifteen years ago there were over 190,000 commercial students in the States. I have no recent figures.

The completeness of the curricula and the choice of courses open to the student are well deserving of study. In some colleges elaborate counting houses, reproducing all the fittings and trappings of a large commercial house, are provided; and fictitious paper money is dealt with. Business correspondence is carried on with other schools, or among the pupils. The Amanuensis Course (Shorthand, Typewriting, etc.), is largely patronised by women. Pennsylvania offers a four years' course in Finance and Economy leading to the B.E. Economics, and shorter courses in Commerce and Industry, in Social Work, Business Practice, Banking, Diplomacy and International Law.

It is impossible to go further into the subject here. The study of the scope and methods of commercial teaching in the United States would be most profitable. If we did things in this country the way we ought to do them, we would send an expert in commercial education to America to study its recent developments. I believe the Royal Dublin Society would do good by taking such a step. A full report would benefit the whole country, and would help our Irish University and School authorities to decide on the curricula best adapted to Irish needs.

Turning to the subject of technical training, we are again in the difficulty of having to dismiss in a few words a subject on which volumes might be written. When all is said, the most wonderful material educational feature of America is the Technical Laboratory. Yet, strange to say, it is just possible that before many years are out, the university laboratory may no longer hold a first place in the estimation of the Engineer or Electrician. There appears to be a tendency towards teaching the pupil by actual experience in the shop or factory. At Cincinnati this is carried out, and very successfully carried out. The student works for

a fortnight in the shops and then studies for a fortnight in the university—alternately. He is paid for his work in the shops at current rates. But, of course, not every university is so placed as to be able to offer its students the requisite number and variety of Engineering workshops. A half-way "proposition"—as an American would say—is for the works to supply to the university the latest machines on loan. The object in both cases is to get over the recognised difficulty of always providing up-to-date machinery and appliances. One thing is worth noting. There seems to be always the most cordial desire on behalf of the big works to help the university and the student.

The scale on which the technical laboratories are built and equipped cannot be realised by any description. At Illinois I saw one of the great railway locomotives bodily brought into the laboratory on a siding for testing and experiment by the students. At Michigan there was a full-sized naval design tank, and experiments were going on upon wax models of submarines, etc. I envied this more than anything I saw. At Yale the engineering shop is just like a very large works—with travelling crane traversing the entire shop, so that the heaviest machines could be carried about and grouped in any way. This is a favourite feature. I have seen in the larger institutions separate laboratories for experiments on reinforced concrete, for stone testing, concrete testing, metal and timber testing; and separate laboratories for steam engines, internal combustion engines, for hydraulic machinery, electric generators, electric motors; all manner of lathe work and metal work; foundries for casting; and these all leading up to the finer work of the physical laboratory, where, with delicate instruments, furnace temperature, spectroscopic work, electrical measurement, etc., were dealt with. And from these one passes finally into the endless research resources of the great physical and chemical departments. All are open to the student. Nothing too good for education! Of the many great Institutes of technology and schools of technology of America I have

no time to speak. The Massachusetts Institute is recognised as the largest of its kind in the world.

When are we going to reconstruct our methods and opportunities for teaching technical science in Ireland? We have municipal schools here and there. Our College of Science in Dublin is a credit to us. But the whole subject requires to be handled in a broad way—on quite a different scale. The first thing would be to get the schools. And I believe they should be graded in the matter of equipment. A comparatively inexpensive equipment would do for boys of, say, fourteen to sixteen. Such schools would teach the elements of mechanical training along with a course in English, Mathematics, etc., and they should not be segregated in the big cities. They should be scattered over the small towns of Ireland. When the boy had run say a two year course in this technical school, I would—if he proved suitable—draft him into a larger city training school. That school should endeavour to obtain the support of local manufacturers, who would accept for instruction, in return for such help as the lads could render, a small number of the older boys. The final step would be the college of science, the university, or apprenticeship in the works.

There is ample material to feed such a training system. The "one too many," instead of leaving his native land, would become a help and a support to her. Money spent on the building and equipment of a hundred such schools in Ireland would be well invested. If only we could get our authorities to see that herein—that is, in matters educational—is the saving of this country. It is customary to talk of the temptations of the towns. The temptations of the country are far worse. Few not naturally ballasted with strong common sense or good education can stand the loafing at country fairs, or the holiday—and there are plenty of them—spent sitting on a wall, in the lamentable occupation of nursing one's grievances, reviving old ones and imagining new ones.

Upon the subject of Primary Education in Ireland it is difficult to say much. It is hedged round with

controversial questions. It is said that difficulties have been raised in the way of the extension of the excellent Fisher Act. Any radical improvement must involve continuation schools; for the greatest evil of all in this country is the early age of withdrawal of the children. It is quite true what a recent writer has stated that the vast majority of our youth receive no education after thirteen or fourteen. The figures speak for themselves. In the last Report of the National Board we read:—"The average number of pupils over three and under fifteen years of age, the limits of age defined in the Act of 1892, Sec. 18, Sub-sec. (5), in daily attendance was 483,732. The total average attendance of those who were fifteen and above was 10,586, or 2.1 per cent. of the total number in average daily attendance." The teaching is, I do not doubt, good. The fault is there is not enough of it.

What becomes of a child withdrawn at fourteen years of age? He is put to herd cattle, weed the fields, run messages, etc., and what should be the most important years of mental growth are given over to mental atrophy. The consequence is arrested mental development and a useless citizen, or, possibly, one worse than useless. I believe a large part of our troubles in this country are due to this great sin of omission by the State. We seldom consider how much of our troubles is due to our own acts. There is no such thing as equilibrium in animate communities of any sort. There is continual unrest. There is nothing in itself unhealthy in such unrest. On the contrary, rest means stagnation and decay. The danger is of such unrest finding vent in acts injurious to the community. The American is quite aware of this when he teaches his children subordination to the interests of the State—citizenship in other words. The child should be kept in school till he learns something of these things.

In Ireland the poor parent will tell you that he wants the wages or the assistance of the child. He cannot afford to keep him at school. This is, doubtless, very often true. When it is, the State should devise means

of recompensing the parent. The child is too valuable an asset to be let go adrift.

I have suggested elsewhere a palliative. Something not so good as a continuation school, but better than nothing. Something which, in many cases, would give the child opportunities for good reading in his home after he is withdrawn from school. I would endeavour to accomplish this in two ways. I would have a juvenile lending library in every National School, and I would issue a *Juvenile Journal* every week, to be delivered gratis at the parent's cottage. On this weekly I would spare no expense. Good paper, good pictures, good stories, short instructive articles, simple problems to be worked, and prizes to be won—prizes worth having. In order to get the child into the way of reading this *Journal*, I would begin its issue before his retirement from school, and then influence him to read it and win prizes. Such a paper might influence the parent also and lighten the darkness—the unspeakable darkness—of the winter evening in the country cabin. Neither politics nor denominational religion would find a place in its pages. A Catholic and a Protestant Censor might sit with the editorial staff if desired.

I know of a parish in County Kildare, the Vicar of which is now sixty years dead. He established, at his own expense, a lending library for the poor of his parish. There was a considerable children's library. Vicar and Parish Priest worked this library in concord, desiring simply to brighten the lives of the people; and till death closed the labours of the moving spirits of this simple charity, these little books, which I have before me, circulated among the villagers. Of the good that was done I have no record. That it has left no record I do not believe.\*

\*Perhaps I should finish this story of an unrecorded life. The Vicar died young—while still almost a boy. Yet he had time to do a good deal. For one thing he trained the village boys to form a band; the Irish have a natural gift for music. He died in County Dublin, and the coffin was brought by rail to Kildare. There were many dreary miles between the railway station and the village church-

Is there anyone here who wants evidence of the defects of primary education in this country? To him I would say, go into their cabins. Do you really believe that these people are unteachable? Do you believe that girls kept in school till they had learned something of housecraft would live in such surroundings? It is little use teaching house-craft or hygiene to children leaving at fourteen. They leave, not only before they understand these things, but while they are still too young to have any voice in home affairs.

Yes, we suffer in every way for our sins of omission. There is no better invested money than money spent on education. Our American cousins have recognised this long ago. It is the biggest lesson to be learned from America. If you won't spend money on education, you have to spend far more in trying to curb the evils of ignorance. Neglect the dwellings of the poor, and your children catch the fevers of the slums. Neglect the educational needs of the people and the unrest of life, which ought to be a healthful unrest, marking progress onwards and upwards, turns to bitterness and strife.

The last purely educational question I shall touch upon is the starvation of the universities in this country; that is, in Great Britain. We are no worse off here than in England. The financial provision made by our Government for university, medical, and higher technical education in the United Kingdom is about £500,000 annually. (England and Wales get £300,000; Scotland, £84,000; and Ireland, £100,000.) The total annual income of all the universities and university colleges in the British Isles, including the Universities of Oxford and Cambridge, is about £2,000,000. The income of the universities and colleges of the United States is £20,000,000. This does not include benefactions, which are much in excess of donations in England. The purely Agricultural

yard. It was winter, and snow was on the ground. The parishioners carried the coffin the whole way, the Priest taking his turn with the others. Eleven years later I know these people still remembered. And yet it is often said the Irish are ungrateful.

and Technical colleges of the United States receive an annual income of £7,000,000. The population ratio is about 4 to 10.

What are the primary consequences of this national parsimony? In America there were in 1914, 34,000 students in Colleges of Agriculture and Mechanic Arts; in Britain the corresponding number—including all technical students—was 4,000.

The first report (1915-1916) of the British Advisory Council for Scientific and Industrial Research pointed out that the primary conditions of success for its operations was a largely increased supply of competent researchers. But you cannot get your researchers unless you increase the number of the university students from which the researchers come. And again, unless you endow the Departments of Research in the universities, you cannot expect high efficiency. There is another reason why it is hard to get research students in this country, and that is because we have not yet got over the examination fetish. In America all manner of valuable appointments are won by ability in research. This has frequently been pointed out by writers on American education.

The primary evil here is want of financial provision for young researchers—to use the new word—in our universities. This is a subject on which I could say so much that it seems better to say nothing.

In America the education of the teacher takes a more important place than it has hitherto done in this country. This is, of course, work of the most fundamental importance. The physiological psychology of the child has been a prominent study for the last twenty years in the States, as well as the study of the development of the instincts of childhood and stages of mental growth. When pedagogical teaching and training were more recently introduced as graduate subjects in the American universities pedagogy assumed the place of an experimental science. In the Universities of Chicago and of Columbia what has been called a Laboratory of Education has been long established with very valuable results. The monographs issued

from the former school, by Professor Dewey, are well known. This is work of which but little seems to have been done in Ireland.

Our university schools of education are not what they should be. They are laudable in design, but they are understaffed. They are, in fact, starved. They do not take the position they are entitled to occupy among the other schools of the university. As a science for university study and research of the first importance, education has nowhere in Ireland received adequate recognition, so far as I am aware. The College of Teachers in Columbia University had a staff of more than seventy special teachers some years ago. The School of Education in the University of Chicago has seventy-five instructors to-day. Well staffed and highly organised elementary and high schools are associated with the University, in which the practice of teaching and the experimental work are carried out.

It will be quite obvious that similar university developments in this country are out of the question so long as the existing financial restrictions continue.

In thinking over our distressful educational state it has sometimes seemed to me that an Irish Educational Conference or Convention might do good. It might at least lead to a clear statement of our wants in practical or technical education. For there is always the danger—and I have felt it a good deal in writing on the subject—that no one individual is competent to look at the extremely complex questions, arising in connection with education, from all points of view; for, really, no one person can hope to know enough about them. A Convention gathered from North, South, East, and West, might remedy this.

I have taken you to America, but told you nothing about the many cities we saw there; the kindly and great men we met; the triumphs of science and art which were shown to us. My own deep impression coming away is that a wonderful future lies before that great land—a destiny of which its people are well



deserving, for they are winning it for themselves. They have built up their Nation on the sure foundations of wise and sane education.

If the great object of the British Educational Mission is to be accomplished, it is to this land we should send our boys for a portion of their academic career; so that they will get to know those cousins of theirs. Only good can come to them by paying such a visit. They will make friends with lads as worthy and as high-minded as themselves. They will see for themselves something of the great educational and social work being done on the other side of the Atlantic. But, above all and before all, it is through their agency alone that enduring peace can be secured for the world. Get the lads to mix, and leave the rest to time. The day will come when these men will grow into professional and commercial influence. Some will sit in Parliament or in Congress, and the other land will be to them shrined in a thousand personal memories. Thus only will peace be assured to the world. It is no unreal dream. It is the making of history in the light of human nature. No greater cause has ever been committed to the university. Leagues, Ententes, are but "scraps of paper" when the supreme test comes. One thing only can make peace permanent: mutual understanding and respect. What is true of individuals is true of nations. Therein is the reconstructive policy of the world.

Those who never will grow old—who never will grow old because they gave their golden years to England, claim from us that we carry this great thing to its fruition. It is well with the world so long as we remember this. The only danger is "lest we forget."

How are we to accomplish this important end? The Americans are enthusiastic on its behalf. They will do their part—of that be assured. How are we to do ours? I have little doubt that best of all would be Travelling Scholarships, founded in our universities, to pay the cost of the lad's journey, and extra expenses in the other country. Such scholarships to be founded in the name of those who have fallen. And

in this way the memory of the great sacrifice will be perpetuated, and the object for which it was made be realised. Will those who have lost near relatives in the war support this cause—supreme above all others? Could any greater monument be raised to the fallen? Can we who are old do any better thing?

And it applies to the women of the Empire as it applies to men. We should have Edith Cavell Travelling Scholarships in every Woman's College or Co-educational Institution in the Kingdom—enabling a girl to go to Bryn Mawr or Holyoke or other Woman's College in the States. She would go to win honour for the Institution which sent her; to play her part in tightening the bonds between the Nations—to accomplish the work for which some young brother gave his life—his all.

Is not this the true way of accomplishing the great end in view? Not by Treasury grants, but by voluntary offerings from the heart of the Nation; the very names of the Scholarships telling our successors for all time that they must not forget.

Yes, as we sail away from New York, we have many things to think upon. The Statue of Liberty looms darkly through the wet December twilight. The torch held aloft is hidden in obscurity. But it needs little imagination to see its clear shining. It shines over a whole vast continent. It shines over mighty cities and over humble log huts remote in virgin forests. And by its light we see a great people intent upon their work. Never pausing, never doubting, never tiring; still ever striving after their high ideals.

What are those Ideals? Pre-eminently these—these which are, and ever will be, inseparably associated—the wise up-bringing of the little children and the peace of the world.

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